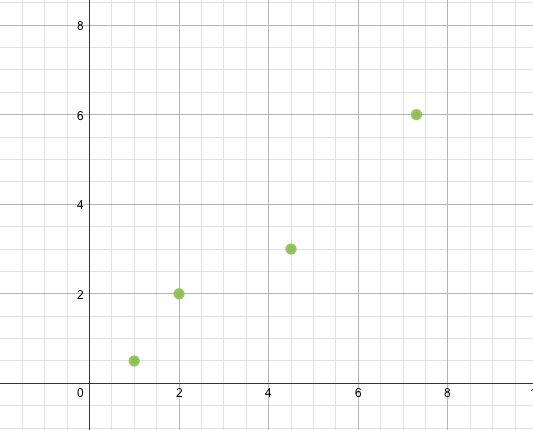
***Graphing extravaganza!!!***

The following graph has a domain of 1, 2, 4.5, and 7.3.



The following graph has a domain of all numbers from -8 to 4.



The following graph has a domain of all numbers greater than and including 0.



The following graph has a domain of all numbers less than but not including 4.



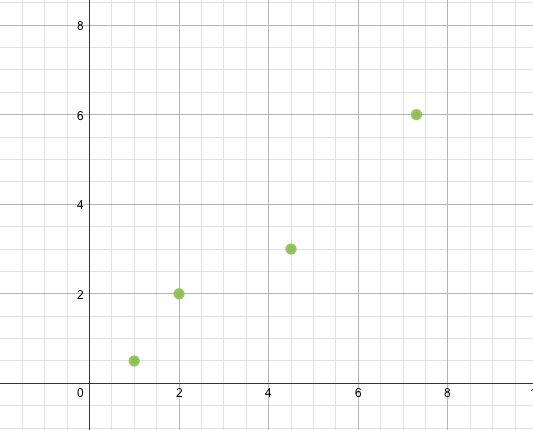
The following graph has a domain of all numbers from 4 to 10, including 4 but not including 10.



Define **domain** in your own words.

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The following graph has a range of ½, 2, 3, and 6.



The following graph has a range of all numbers from -1 to 1.



The following graph has a range of all numbers greater than and including -1.



The following graph has a range of all numbers.



The following graph has a range of all numbers from -6 to 6.



Define **range** in your own words.

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The following graph has decreasing intervals from *x* = – to -0.25 and from *x* = 0.9 to 3.6 and increasing intervals from *x* = -0.25 to 0.9 and *x* = 4.6 to +.



The following graph has a decreasing interval from *x* = 0 to 0.9 and an increasing interval from *x* = 0.9 to ∞.



The following graph has decreasing intervals from *x* = 4 to 4.5 and x = 7.6 – infinity and an increasing interval from *x* = 4.5 to 7.6.



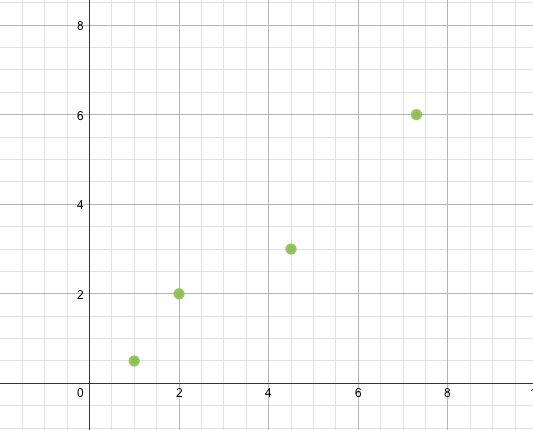
Define **increasing interval** and **decreasing interval** in your own words.

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The following graph has neither *x*- nor *y*-intercepts.



The following graph has *x*-intercepts at -6.7, -3.5, 0, and 3.2 and a *y*-intercept at 0.



The following graph has *x*-intercepts at 0 and 1.5 and a *y*-intercept at 0.



The following graph has and *x*-intercept at 1.8 and a *y*-intercept at 1.



Define **intercept** in your own words.

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From what you know about a function, can a function have more than one *x*-intercept? Can it have more than one *y*-intercept? Defend your answer. You may want to draw a picture to support your answer.

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The following graph has end behavior of down, down.



The following graph has end behavior of up, up.



The following graph has end behavior of up, up.



The following graph has end behavior of up, down.



Define **end behavior** in your own words.

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The following graph has a relative maximum of *y* = 1 and a relative minimum of *y* = -1.



The following graph has a relative minimum of *y* = -1 and no relative maximum.



The following graph has a relative minimum of *y* = -10.1 and a relative maximum of *y* = 1.8.



The following graph has a relative minimum of *y* = -5 and a relative maximum of *y* = 5.

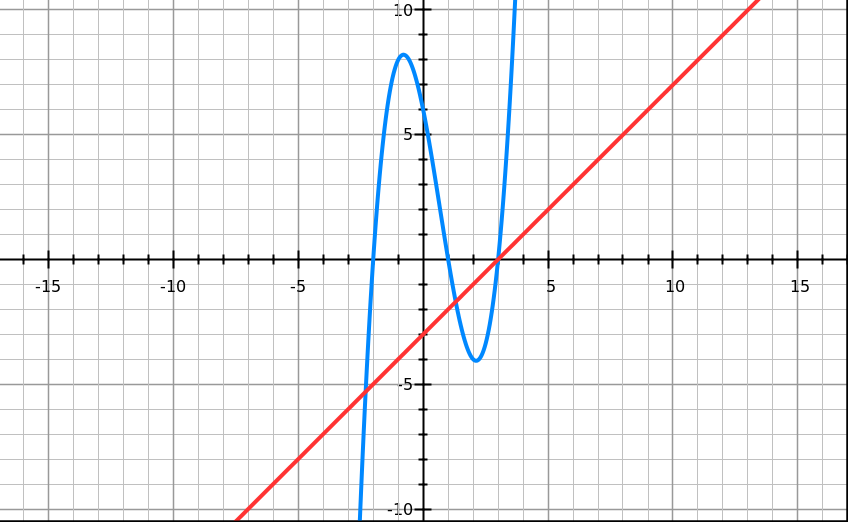


Define **relative maximum** and **relative minimum** in your own words.

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In the following graph, let *f(x)* be the blue curve and *g(x)* be the red line.



*g(x)* > *f(x)* for values of *x* from - to -2.3 and for values of *x* from 1.2 to 3.

*g(x) < f(x)* for values of *x* -2.3 to 1.2 and for values of *x* from 3 to

*f(x) = g(x)* for *x* = 3.

Define in your own words what the above three statements mean.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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